### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/Ala Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-007725 Address: 333 Burma Road **Date Inspected:** 26-Jun-2009

City: Oakland, CA 94607

OSM Arrival Time: 1900 **Project Name:** SAS Superstructure **OSM Departure Time:** 700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Chen Ying Xin, Li Lin No **Inspected CWI report:** Yes **Rod Oven in Use:** Yes No No N/A N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Tower and OBG Components

## **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector George Goulet was present during the times noted above for observations relative to the work being performed.

**OBG** Trial Assembly Area

This QA Inspector, George Goulet, observed the following work in progress in the trial assembly area:

3AE/3BE – Installing of inner and outer lap plates of deck panel U-rib segment splices.

4BE/5AE - Installing of web lap plates at the north side plate segment splices.

Bay 10

This QA Inspector, George Goulet, randomly observed the following work in progress in Bay 10:

SAW welding of weld joint NSD1-FASA4-1A/E-4A located on PCMK north tower, lift 4, skin A. Welder was identified as 040460. ZPMC QC was identified as Chen Ying Xin (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Wang Hao, who was not a CWI. The welding variables recorded by QC1 and QC1's assistant appeared to comply with WPS-B-T-2221-B-U3B-S-2. Also present at this location and appearing to be monitoring the welding operation was ABF Representative Ma Zhen Yi.

SMAW welding of weld joint SSD1-FASA4-1E/E-33B, mounted on an A-frame, located in PCMK south tower, lift 4, skin A. Welder was identified as 052930. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Wang Hao, who was not

# WELDING INSPECTION REPORT

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a CWI. The welding variables recorded by QC1 and QC1's assistant appeared to comply with WPS-B-T-3211-Tc-U5b-1.

SMAW welding of weld joint ED1-A5007-4-1B located in PCMK east tower, lift 4. Welder was identified as 040582. ZPMC QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Deng Zhi Bing, who was not a CWI. The welding variables recorded by OC1 and OC1's assistant appeared to comply with WPS-B-T-3221-Tc-U5b-1.

FCAW welding of weld joints SSD1-FESA4-1F/F-35, 36 located on PCMK south tower, lift 4, skin E. Welders were identified respectively as 052075, 053116. ZPMC QC was identified as CWI Chen Ying Xin (QC2). Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Shi Jing Wei, who was not a CWI. The welding variables recorded by QC2 and QC2's assistant appeared to comply with WPS-B-T-2332-B-Tc-P5-F.

# Bay 11

This QA Inspector, George Goulet, randomly observed the following work in progress in Bay 11:

SAW welding of weld joints WSD1-FCSA4-2A/C-47, 63B located on PCMK west tower, lift 4, skin C. Welder was identified as 202756. ZPMC QC was identified as CWI Li Lin (QC3). Assisting QC3 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Inspector Zhang Xiong, who was not a CWI. The welding variables recorded by QC3 and QC3's assistant appeared to comply with WPS-B-T-2221-B-U3B-S-2 for the CJP weld and WPS-B-T-2321-B-P3-S-2 for the PJP weld.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

## **Summary of Conversations:**

This QA Inspector, George Goulet, asked each QC monitoring the welding if all the welding variables observed by QC appeared to comply with the appropriate WPS, including the preheat requirements according to thickness of the thickest member being welded. Each QC showed this QA Inspector, George Goulet, that QC was carrying the proper temperature sticks to monitor the minimum and maximum preheat and interpass temperatures and replied that all QC observed did appear to comply.

#### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 134-8257-0045, who represents the Office of Structural Materials for your project.

Inspected By:	Goulet, George	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer